

## Amendments to the Specification:

Please make the following amendments to the Specification:

Please insert the following paragraph after paragraph 35

[0036] Figure 9 is a flow chart according to the self-adaptable data compression method of the invention.

Insert the following paragraph after paragraph 59.

[0060] A method according to the invention for self-adaptable data compression is shown in Figure 9. A waveform is digitized into a plurality of data points, each of which corresponds to amplitude and time, as shown in Figure 5. Because the sampling rate for digitization is generally known, amplitude is the variable of interest. The amplitude for each point in the waveform is recorded at step 702 to yield a first set of data. A first compression protocol is applied to the first set of data at step 704. This provides a second set of data. A second compression protocol is applied to the first set of data at step 706. This yields a third set of data. At step 708, the size of the second set of data (compressed by the first protocol) is compared to the size of the third set of data (compressed by the second protocol) to determine whether the second set of data or the third set of data would require less memory for storage. Of course, a third, fourth, etc., number of compression protocols may also be applied to the first set of data and their results compared to find the compression technique that yields the smallest data set. As noted above, in certain situations, none of the compression techniques may reduce the memory requirements and the first set of data may be the set chosen by the microprocessor for longer-term storage.